

SALIENT CHARACTERISTICS

X-Y RECORDER

RX0NP-B

- 1.0 GENERAL This procurement requires a high performance X-Y recorder with two dc amplifiers (one per axis) with input ranges from 0.5 mV/cm to 10 V/cm.
- 2.0 CLASSIFICATION The equipment shall meet the requirements of MIL-T-28800D, Type III, Class 5, Style E, Color R for Navy shipboard, submarine, and shore applications with the following modifications and exceptions:
 - a. The non-operating temperature requirement is limited to the range of -40°C to +70°C.
 - b. The relative humidity requirement is limited to 95% noncondensating.
 - c. The operating and non-operating altitude requirement is not invoked.
 - d. The EMI requirement is not invoked.
- 3.0 OPERATIONAL REQUIREMENTS
 - 3.1 Paper Size: The recorder shall be capable of plotting on any size paper up to a maximum of 305 x 432 mm (12 x 17 inches).
 - 3.2 Paper Holddown: The paper holddown shall be of the electrostatic type in order to accommodate various paper sizes and to require no periodic maintenance other than cleaning.
 - 3.3 Pens: A fast drying, disposable fiber tipped pen shall be used in the writing system.
 - 3.4 X-Y Inputs: Floating signal pairs shall be available through front panel or rear connectors. Input shall be capable of being operated up to ± 500 Vdc with respect to chassis ground.
 - 3.5 Zero Set: Zero reference shall be capable of being placed anywhere on the writing area.
 - 3.6 Accuracy: Shall be $\pm 0.3\%$ of full scale or better
 - 3.7 Writing Speed: Shall be at least 76 cm/second (30 in/second)
 - 3.8 Linearity: Shall be $\pm 0.1\%$ of full scale or better
 - 3.9 Resettability: Shall be better than $\pm 0.2\%$ full scale
 - 3.10 Pen Lift: Local and remote control via contact closure or TTL level
 - 3.11 X-Y Input Ranges: Shall be at least 0.5 mV/cm to 10 V/cm

- 3.12 Range Vernier: The range vernier shall be a continuous adjustment overlapping adjacent ranges and shall be lockable.
- 3.13 Input Impedance: The input impedance shall be a constant 1 megohm (or greater) on all ranges.
- 3.14 Common Mode Rejection: The common mode rejection shall be 100 dB minimum for dc and 90 dB minimum for ac.
- 4.0 GENERAL REQUIREMENTS
- 4.1 Dimensions: 458 mm x 508 mm x 178 mm maximum (18 in x 20 in x 7 in)
- 4.2 Weight: 20.45 kg (45 lbs) maximum
- 4.3 Power: 115/230 Vac $\pm 10\%$, 50/60 Hz, 150 VA maximum
- 4.4 Calibration Interval: The calibration interval shall be at least 12 months minimum. The equipment shall be within all accuracy requirements specified herein, with a 72% or greater confidence factor following a calibration interval of 12 months.